



Department of Toxic Substances Control



Edwin F. Lowry, Director
400 P Street, 4th Floor, P.O. Box 806
Sacramento, California 95812-0806

Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Gray Davis
Governor

SFUND RECORDS CTR
2374268

April 14, 2000

Texaco Refining and Marketing, Inc.
c/o Corporation Service Company, DBA, CSC
Lawyers Incorporating Service
2730 Gateway Oaks Drive, Suite 100
Sacramento, California 95833

Atlantic Richfield Company
c/o C T Corporation System
818 West Seventh Street
Los Angeles, California 90017

Union Oil Company of California
c/o Ms. Vicky Simonian
376 S Valencia Avenue
Brea, California 92823

Shell Oil Company
c/o C T Corporation System
818 West Seventh Street
Los Angeles, California 90017

**IMMINENT AND SUBSTANTIAL ENDANGERMENT DETERMINATION AND
REMEDIAL ACTION ORDER; THOMAS RANCH SITE LOCATED AT
PALISADES DRIVE, CORONA, RIVERSIDE COUNTY, CALIFORNIA**

To the Above-Listed Authorized Agents for Service of Process:

The Department of Toxic Substances Control (DTSC) has issued the enclosed Imminent and Substantial Endangerment and Remedial Action Order (Order), Docket No. I&SE 93-94-019AM3, which amends I&SE 93-94-019A, adding you as a person responsible for cleaning up the release of hazardous substances at the Thomas Ranch site named above.

The Authorized Agents for Service of Process

Page 2

April 14, 2000

Please note that you may be liable for substantial penalties and punitive damages if you do not comply with the Order. If you have any questions, please call me at (916) 323-2829.

Sincerely,

Harold M. Thomas
Chief Counsel



Isabella Alasti
Staff Counsel
Office of Legal Counsel

Enclosures

cc: Mrs. Barbara Thomas Bray Schofield
c/o Ms. Cynthia Ezell
Attorney at Law
1850 5th Avenue
San Diego, California 92101

The Charles A. Thomas and Barbara T. Bray Trusts
c/o Ms. Cynthia Ezell
Attorney at Law
1850 5th Avenue
San Diego, California 92101

The Bank of America
National Trust and Savings Association
c/o Peter C. Sheridan
2121 Avenue of the Stars
Eighteenth Floor
Los Angeles, California 90067

Mr. Robert S. Kipper
c/o Ms. Cynthia Ezell
Attorney at Law
1850 5th Avenue
San Diego, California 92101

Western Properties Service
Corporation dba WSLA
Development Corporation
c/o Federal Deposit Insurance Corporation
P.O. Box 7549
Newport Beach, California 92658-7549

Western Savings and Loan Corporation
c/o Federal Deposit Insurance Corporation
P.O. Box 7549
Newport Beach, California 92658-7549

Shell Oil Company
c/o Mr. Thomas Kerns
Legal Department
1 Shell Plaza 4864
Houston, Texas 77252

Unocal Corporation
c/o Brendan Michael Dixon
Associate General Counsel
Hartley Center
376 S. Valencia Avenue
Brea, California 92621

Texaco, Inc.
c/o Ms. Judith Wenker
Legal Department
10 Universal City Plaza, #1300
Universal City, California 91608

The Authorized Agents for Service of Process

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April 14, 2000

Atlantic Richfield Company
c/o Ms. Jean Martin
444 S. Flower Street, ALF 3583
Los Angeles, California 90071

Mr. John Van Vlear
Voss, Cook & Thel, LLP
P.O. Box 2290
Newport Beach, California 92658-8958

Ms. Nennet Alvarez
Department of Toxic Substances Control
Site Mitigation Branch
5796 Corporate Avenue
Cypress, California 90630

Mr. Oussama Issa
Department of Toxic Substances Control
Site Mitigation Branch
5796 Corporate Avenue
Cypress, California 90630

STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

In the Matter of:

Thomas Ranch
Palisades Drive
Corona, California

Responsible Parties:

Mrs. Barbara Thomas Bray
Schofield
c/o Ms. Cynthia Ezell
Attorney at Law
1850 5th Avenue
San Diego, California 92101

The Charles A. Thomas and
Barbara T. Bray Trusts
c/o Ms. Cynthia Ezell
Attorney at Law
1850 5th Avenue
San Diego, California 92101

The Bank of America National
Trust and Savings Association
c/o Peter C. Sheridan
2121 Avenue of the Stars
Eighteenth Floor
Los Angeles, California 90067

Robert S. Kipper
c/o Ms. Cynthia Ezell
Attorney at Law
1850 5th Avenue
San Diego, California 92101

Western Properties Service
Corporation dba WSLA
Development Corporation
c/o Federal Deposit Insurance
Corporation
P.O. Box 7549
Newport Beach, California 92658-7549

Western Savings and Loan Corp.
c/o Federal Deposit Insurance
Corporation
P.O. Box 7549
Newport Beach, California 92658-7549

Docket No. (I&SE 93-94-019AM3)

Amending Imminent and
Substantial Endangerment
Determination and Remedial
Action Order

Docket No. (I&SE 93-94-019A)

Amending Imminent and
Substantial Endangerment
Determination and Remedial
Action Order

Docket No. (I&SE 93-94-019)
Imminent and Substantial
Endangerment Determination
and Remedial Action Order

Amending Order
No. 86/87-001RA
dated August 21, 1986

Health and Safety Code,
Sections 25358.3 (a),
25355.5(b) (3),
25359.2, 58009, and 58010.

1 Shell Oil Company
2 c/o Mr. Thomas Kerns
3 Legal Department
4 1 Shell Plaza, 4864
5 Houston, Texas 77252

6 Unocal Corporation
7 c/o Brendan Michael Dixon
8 Associate General Counsel
9 Hartley Center
10 376 S. Valencia Avenue
11 Brea, California 92621

12 Texaco, Inc.
13 c/o Ms. Judith Wenker
14 Legal Department
15 10 Universal City Plaza, #1300
16 Universal City, California 91608

17 Atlantic Richfield Company
18 c/o Ms. Jean Martin
19 444 S. Flower Street, ALF 3583
20 Los Angeles, California 90071

21 Amendment of Prior Orders. This Order amends Order 86/87-001RA dated
22 August 21, 1986, the Imminent and Substantial Endangerment Determination and
23 Remedial Action Order, Docket No. I&/SE 93-94-019, issued June 30, 1994
24 ("June 30, 1994 Order"), and the Amendment thereto, Docket No. I&/SE 93-94-019A,
25 issued June 18, 1997.

26 Paragraph 1.2 of the June 30, 1994 Order is changed as follows:

27 1.2. Parties. The State Department of Toxic Substances Control ("Department")
28 issues this Imminent and Substantial Endangerment Determination and Remedial
Action Order to Mrs. Barbara Thomas Bray Schofield, an individual; The Charles A.
Thomas and Barbara T. Bray Trusts; The Bank of America National Trust and Savings
Association, Trustee; Robert S. Kipper, Trustee; Western Properties Service
Corporation dba WSLA Development Corporation, an Arizona Corporation doing
business in California; Western Savings and Loan Corporation, an Arizona Corporation
doing business in California; Shell Oil Company ("Shell"), Union Oil Company

1 ("Union"), Texaco (as successor to the Texas Company and Tidewater-Associated,
2 "Texaco"), and Atlantic Richfield Company (as successor to the Richfield Company
3 "ARCO"). All above-named are Responsible Parties, herein referred to as
4 Respondents. Should additional persons be identified as potentially responsible
5 parties or liable parties pursuant to the Hazardous Substance Account Act ("HSAA"),
6 Comprehensive Environmental Response Compensation and Liability Act ("CERCLA")
7 (42 U.S.C. 9601 et seq.), or other applicable laws, the Department reserves all rights it
8 has against any such party, including but not limited to, issuing an order requiring such
9 party to undertake response activities at the Site and/or to seek recovery of the
10 Department's response costs incurred in connection with the Site.
11

12 Paragraph 2.1.5. is added to the June 30, 1994 Order as follows:

13 2.1.5. The Department has determined that Respondents Shell, Union, Texaco,
14 and ARCO are responsible parties. This determination is based upon the finding that
15 the Respondents Shell, Union, Texaco, and ARCO arranged for disposal or treatment,
16 or arranged with a transporter for transport for disposal or treatment, of the hazardous
17 substances which are found at the Site.
18
19
20

21 April 12, 2000

22 Date

Nennet V. Alvarez

Nennet V. Alvarez
Branch Chief
Southern California Cleanup Operations, Branch B
Department of Toxic Substances Control

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25 ///

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STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

In the Matter of:

Thomas Ranch
Palisades Drive
Corona, California

Docket No. [I&/SE 93-94-019A]

Amending Imminent and
Substantial Endangerment
Determination and Remedial
Action Order

Responsible Parties:

Mrs. Barbara Thomas Bray
Schofield
c/o Ms. Cynthia Ezell
Attorney at Law
1850 5th Avenue
San Diego, California 92101

Docket No. [I&/SE 93-94-019]
Imminent and Substantial
Endangerment Determination
and Remedial Action Order

Amending Order
No. 86\87-001RA
dated August 21, 1986.

The Charles A. Thomas and
Barbara T. Bray Trusts
c/o Ms. Cynthia Ezell
Attorney at Law
1850 5th Avenue
San Diego, California 92101

Health and Safety Code,
Sections 25358.3 (a),
25355.5(b) (3),
25359.2, 58009, and 58010

The Bank of America National
Trust and Savings Association
c/o Peter C. Sheridan
2121 Avenue of the Stars
Eighteenth Floor
Los Angeles, CA 90067

Robert S. Kipper
c/o Ms. Cynthia Ezell
Attorney at Law
1850 5th Avenue
San Diego, California 92101


Western Properties Service
Corporation dba WSLA
Development Corporation
c/o Federal Deposit Insurance
Corporation
P.O. Box 7549
Newport Beach, CA 92658-7549

Western Savings and Loan Corp.
c/o Federal Deposit Insurance
Corporation
P.O. Box 7549
Newport Beach, CA 92658-7549

1 Amendment of Prior Orders. This Order amends Order 86/87-
2 001RA dated August 21, 1986 and the Imminent and Substantial
3 Endangerment Determination and Remedial Action Order, Docket No.
4 I&SE 93-94-019, issued June 30, 1994 (June 30, 1994 Order).
5 Paragraph 2.3.1 of the June 30, 1994 Order is changed as follows:
6

7 "2.3.1. Hazardous substances were deposited in ponds at the
8 Thomas Ranch Site in approximately 1941 to 1942. The owners at
9 that time were Frank LeRoy Wardlow and Elma Wardlow."
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DATED: 6/18/97 

Hamid Saebfar, Chief
Site Mitigation Cleanup Operations
Southern California Branch A

STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

In the Matter of:

Thomas Ranch
Palisades Drive
Corona, California

Docket No. [I&/SE 93-94-019]

Imminent and Substantial
Endangerment Determination
and Remedial Action Order

Amending Order No. 86\87-
001RA dated August 21, 1986.

Responsible Parties:

Mrs. Barbara Thomas Bray
Schofield
P.O.Box 293
Rancho Santa Fe, CA 92067

Health and Safety Code,
Sections 25358.3 (a),
25355.5(b) (3),
25359.2, 58009, and 58010

The Charles A. Thomas and
Barbara T. Bray Trusts
P.O.Box 293
Rancho Santa Fe, CA 92067

The Bank of America National
Trust and Savings Association
c/o Peter C. Sheridan
2121 Avenue of the Stars
Eighteenth Floor
Los Angeles, CA 90067

Robert S. Kipper
5610 Via San Jacinto
Riverside, CA 92506

Western Properties Service
Corporation dba WSLA
Development Corporation
c/o Resolution Trust Corp.
1515 Arapahoe Street
Tower 3, Suite 800
Denver, CO 80202

Western Savings and Loan Corp.
1515 Arapahoe Street
Tower 3, Suite 800
Denver, CO 80202

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I. INTRODUCTION

1.1 Amendment of Prior. This order is an amendment of a previous Remedial Action Order, Docket number 86/87-001RA, issued regarding the above entitled matter on August 21, 1986. The Imminent and Substantial Endangerment Determination has been made because, based on data collected since 1986, the Department has now determined that there may be an imminent and substantial endangerment to the public health or welfare or to the environment because of a release of hazardous substances. In addition, the amended order is issued to reflect and update the progression of cleanup at the site, the new implemented schedules for cleanup and a schedule for cost recovery payments to be made by Western Properties Service Corporation dba WSLA Development Corporation ("WPSC") named as a Responsible Party herein.

1.2. Parties. The State Department of Toxic Substances Control ("Department") issues this Imminent and Substantial Endangerment Determination and Remedial Action Order to Mrs. Barbara Thomas Bray Schofield, an individual; The Charles A. Thomas and Barbara T. Bray Trusts; The Bank of America National Trust and Savings Association, Trustee; Robert S. Kipper, Trustee; Western Properties Service Corporation dba WSLA Development Corporation, an Arizona Corporation doing business in California; Western Savings and Loan Corporation, an Arizona Corporation doing business in California. All above-named are Responsible Parties, herein referred to as Respondents. Should additional persons be

1 identified as potentially responsible parties or liable parties
2 pursuant to the Hazardous Substance Account Act ("HSAA"),
3 Comprehensive Environmental Response Compensation and Liability
4 Act ("CERCLA") (42 U.S.C. 9601 et seq.), or other applicable laws,
5 the Department reserves all rights it has against any such party,
6 including but not limited to, issuing an order requiring such
7 party to undertake response activities at the Site and/or to seek
8 recovery of the Department's response costs incurred in connection
9 with the Site.

10 Moreover, the Department's investigation of potentially
11 responsible parties is ongoing. This investigation includes the
12 liability of the refining entities who may be responsible for the
13 actual disposal of wastes at the site. Information allegedly
14 collected by other potentially responsible parties suggests that
15 more than one oil refining company may have disposed wastes at the
16 Site. Accordingly, the Department reserves the right to amend
17 this order to name or delete potentially responsible parties as
18 evidence becomes available.

19 1.3. Site. The site which is the subject of this order is
20 known as Thomas Ranch and is currently owned by WPSC. The Site
21 is bounded by Palisades Drive (formerly called Green River Drive)
22 and Serfas Club Drive in the city of Corona, Riverside County,
23 California. The Site is located directly south of Palisades Drive
24 and west of Serfas Club Drive. The geographic coordinates of the
25 Site are 33° 52' 39.8" N latitude and 117° 35' 26.10" W longitude
26 (Township 3 South, Range 7 West, Section 28, San Bernardino
27

1 Baseline and Meridian, Corona North, California 7.5-minute
2 quadrangle). The Assessor's Parcel number for this site is
3 102-380-009-9.

4 A map showing the location of the Site, a site plot plan, a
5 copy of the most recent Grant Deed by which WPSC acquired the
6 property, and the Assessor's Parcel number and map are attached as
7 Exhibits A, B, C and D respectively.

8 1.4. Jurisdiction. Section 25358.3 (a) of the California
9 Health and Safety Code authorizes the Department to issue an Order
10 when the Department determines that there may be an imminent or
11 substantial endangerment to the public or welfare or to the
12 environment, because of a release or a threatened release of a
13 hazardous substance.

14 Section 25355.5(a)(1)(B) of the California Health and Safety
15 Code authorizes the Department to issue an Order establishing a
16 schedule for removing or remedying a release of a hazardous
17 substance at a site, or for correcting the conditions that
18 threaten the release of a hazardous substance. The order may
19 include, but is not limited to, requiring specific dates by which
20 the nature and extent of a release shall be determined and the
21 site adequately characterized, a remedial action plan prepared and
22 submitted to the Department for approval, and a removal or
23 remedial action completed.

24 Section 25359.2 of the California Health and Safety Code
25 allows for the imposition of administrative penalties for failure
26
27

1 to comply with an order issued pursuant to section 25358.3 or
2 25355.5

3 Sections 58009 and 58010 of the California Health and Safety
4 Code authorize the Department to commence and maintain all proper
5 and necessary actions and proceedings to abate public nuisances
6 related to matters within its jurisdiction which are dangerous to
7 health.

8
9 II. FINDINGS OF FACT

10
11 2.0. The Department hereby finds:

12
13 2.1. Liability of Respondents.

14 2.1.1. The Department has determined that Respondent,
15 Mrs. Barbara Thomas Bray Schofield ("Mrs. Schofield"), is a
16 responsible party. This determination is based on information
17 that Mrs. Schofield was a beneficiary of the Charles A. Thomas
18 Trust and the Barbara T. Bray Trust until October 3, 1985.
19 Properties held in trust included the Site.

20 2.1.2. The Department has determined that Respondent,
21 the Bank of America National Trust and Savings Association, is a
22 responsible party. This determination is based on information
23 that Bank of America Trust and Savings Association was trustee of
24 the named Trusts from September 1959 until September 1983.
25 Properties held in trust included the Site.

1 2.1.3. The Department has determined that Respondent,
2 Robert S. Kipper, is a responsible party. This determination is
3 based on information that Mr. Kipper was trustee of the named
4 Trusts on or about March 1985.

5 2.1.4. The Department has determined that Respondents,
6 Western Properties Service Corporation dba WSLA Development
7 Corporation, and Western Savings and Loan Corporation, ("WSLC") as
8 sole owner of Western Properties Services Corporation, are
9 responsible parties. After the Federal Deposit Insurance
10 Corporation declared WSLC an insolvent institution, the Resolution
11 Trust Corporation ("RTC") became the conservator of WSLC and
12 holder of WSLC's subsidiary WPSC. The RTC is a temporary federal
13 agency created by Congress to manage the financial restructuring
14 of failed savings and loans. WSLC went into receivership in
15 May 1990 under the RTC and the RTC in its receivership capacity is
16 effectively overseeing the affairs of WSLC and WPSC. The
17 determination that WPSC is a responsible party is based on
18 information that WPSC is the current owner/operator of the Site as
19 of October 3, 1985.

20
21 2.2. Physical Description of Site. The Thomas Ranch site is
22 a 38-acre parcel located near the City of Corona, in Riverside
23 County, California. The site is located on a 345.5 acre portion
24 of the Thomas Yorba allotment. The Site consists of three parts:
25 four ponds which comprise approximately 14 acres; the Wardlow Wash
26 which comprises approximately 4 acres; and the dirt and storage
27

1 area which comprises approximately 20 acres of the total 38-acre
2 parcel.

3 The origin of the hazardous substances found at the site can
4 be traced to four unlined petroleum waste ponds surrounded by a
5 predominantly residential area. The area containing the ponds is
6 approximately 1200 feet by 500 feet. The ponds are physically
7 situated south of Palisades Drive and west of Serfas Club Drive.

8 A letter from Elma Wardlow, the property owner in 1941,
9 indicates that a Long Beach oil company disposed of oily sludge
10 and spent sulfuric acid at the site beginning in 1941 or 1942.
11 Therefore the Department has concluded that the ponds are over 50
12 years old. A volume of petroleum waste is known to exist in these
13 ponds. The Department has designated these ponds 1 through 4,
14 beginning with the southeasternmost pond. Pond 1 through 3 are
15 located in close proximity to each other at the southeast corner
16 of the site. Ponds 1 through 3 are separated from each other by
17 low emulsion earthen dikes. No free liquid is present at the
18 surface. An emulsion layer underlies Pond 1, while Ponds 2 and 3
19 are solid petroleum sludge. A chainlink fence surrounds Ponds 1
20 through 3 to prevent unauthorized entrance into the pond areas.
21 The Fourth pond is located in the northwestern portion of the
22 site. The surface of pond 4 is covered with two to eight feet of
23 overburden soils. A flat surface is present near the center of
24 the pond. However, the topography of the pond is a rolling
25 hummocky surface sloping towards the southwest. Pond 4 is also
26 enclosed by a chainlink fence.

1 These four waste ponds, designated Ponds 1 through 4, run
2 parallel to the Wardlow Wash. Wardlow Wash is a natural drainage
3 way within the 100 year flood plain that runs southeast to
4 northwest through the southern portion of the 38 acre parcel. The
5 Wash is ephemeral (i.e., contains water only during periods of
6 rainfall). Wardlow Wash is located at the base of the Santa Ana
7 Mountains and drains into the Temescal Basin, which in turn
8 connects with the Upper Santa Ana River Basin approximately one
9 mile north of the site.

10 The groundwater level underlying the site ranges from 76 to
11 114 feet below ground surface ("bgs"). The soils at the site have
12 a high hydraulic conductivity ranging from 9×10^{-3} to 1×10^{-2} cm/sec.
13 No continuous confining layer is believed to exist within a 2-mile
14 radius of the site. The nearest drinking water well is 1.3 miles
15 west of the site and is perforated between 280 and 301 feet bgs.
16 Groundwater downgradient of the Site is used beneficially for
17 domestic, industrial and agricultural purposes. Surface waters in
18 the area of the Site are tributary to the Santa Ana River and
19 these waters are used for domestic, industrial, agricultural,
20 recreational, ground water recharge, fish and wildlife purposes.

21 The Site has been segregated on a tentative subdivision map
22 as Lot 46, and it is separated from the Sierra del Oro development
23 project, located south and west of the site. The Sierra del Oro
24 project is a large master planned community consisting of
25 residential and commercial uses. There are residential homes
26 located approximately 150 to 200 feet above and west of the site.

1 In addition east of the site, running along Monterey Peninsula
2 Drive there are homes which are located approximately 200 to 300
3 feet from the site. A map and a site plot plan are attached as
4 Exhibits A & B respectively.

5
6 2.3. Site History.

7 2.3.1. Hazardous substances were deposited in ponds at
8 the Thomas Ranch Site in approximately 1941 or 1942 by Wilshire
9 Oil of Long Beach in exchange for a payment to the owners, Frank
10 LeRoy Wardlow and Elma Wardlow, of \$2,000.

11 2.3.2. Records from the Riverside County Recorder
12 indicate that by a deed recorded July 19, 1946, Frank and Elma
13 Wardlow conveyed the property to Charles A. Thomas and Laurretta
14 Thomas. Apparently the Thomases financed the purchase of the
15 property by borrowing fifty three thousand dollars from the
16 Wardlows and executing a deed of trust in favor of the Wardlows.
17 The deed of trust is dated April 20, 1946 and reflects that
18 Charles and Laurretta Thomas were set up as the trustors, Frank and
19 Elma Wardlow were the beneficiaries and Bank of America was the
20 trustee. Records indicate that the Thomases in turn conveyed this
21 property to Bank of America as trustee by a deed recorded
22 September 24, 1959. By a deed recorded September 27, 1983, Bank
23 of America conveyed this property to Robert S. Kipper, trustee.
24 The site was finally conveyed to WPSC by a deed recorded
25 October 3, 1985. (See Exhibit E.)
26
27

1 In addition east of the site, running along Monterey Peninsula
2 Drive there are homes which are located approximately 200 to 300
3 feet from the site. A map and a site plot plan are attached as
4 Exhibits A & B respectively.

5
6 2.3. Site History.

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22 September 24, 1959. By a deed recorded September 27, 1983, Bank
23 of America conveyed this property to Robert S. Kipper, trustee.
24 The site was finally conveyed to WPSC by a deed recorded
25 October 3, 1985. (See Exhibit E.)

1 2.3.3. On April 5, 1982, the California Regional Water
2 Quality Control Board, Santa Ana Region ("RWQCB") notified the
3 Bank of America of the discovery of waste ponds at the Site. RWQCB
4 stated that the waste ponds posed a threat to water quality and
5 ordered the Bank of America to submit a clean up plan by
6 April 23, 1982. Bank of America subsequently failed to submit
7 this plan.

8 2.3.4. On July 9, 1982, the Department inspected the
9 Site and obtained soils and waste samples for laboratory analysis.
10 The results indicated that the following compounds
11 were present: sulfur dioxide, naphthalene, toluene, xylene,
12 benzene, and thiophene.

13 2.3.5. On October 1, 1982, the Department sent an
14 enforcement letter directing the Bank of America to enclose the
15 Site, post warning signs, begin investigation of the
16 contamination, and to plan for the disposal of wastes from the
17 Site. Laboratory results of waste analysis from the July 1982
18 sampling revealed that hazardous substances were on the Site.

19 2.3.6. On June 14, 1983, the Department sent a letter to
20 Mrs. Schofield requesting that she provide the Department with a
21 schedule for implementing a Remedial Investigation and that she
22 provide the Department the name of her consulting firm.
23 Additionally, the Department sought information regarding the
24 names of prospective buyers for the Site.

25 2.3.7. In October 1983, on behalf of Mrs. Schofield,
26 John Byerly Inc., a private consultant reported sampling results
27

1 of the substances at the Site. Their samples were found to
2 contain lead, arsenic, naphthalene, toluene, propylbenzene,
3 xylene, and ethylbenzene.

4 2.3.8. On September 17, 1985, the Department sent an
5 order to Mrs. Schofield instructing her to start clean up action
6 under Health and Safety Code Section 25355.5(a)(1).

7 2.3.9. On October 9, 1985, J.F. Davidson and Associates
8 confirmed the sale of Thomas Ranch to WPSC as of October 3, 1985.

9 2.3.10. The Department completed a Preliminary
10 Assessment and a Site inspection of the site for Region IX EPA in
11 1985. The Thomas Ranch site was included in the Bond Expenditure
12 Plan in 1989.

13 2.3.11. Between October 1983 and March 1988,
14 investigations of the waste materials, soils, and groundwater were
15 conducted by John Byerly Inc., Ron Barto & Associates, and OH
16 Materials.

17 2.3.12. The Remedial Investigation initiated in 1987,
18 found and identified hazardous substances at the Thomas Ranch site
19 which include:

- 20 - Acidic petroleum wastes mostly in a solid
- 21 form containing benzene, toluene and
- 22 naphthalene compounds.
- 23 - Organic sulfur compounds which can generate odors.

24 2.3.13. In November 1988, a workplan was presented by
25 Dames & Moore, on behalf of WPSC, to the Department to further
26 assess the impact of the waste ponds on the underlying soils and
27

1 groundwater. In February 1989, the workplan was approved by the
2 Department.

3 2.3.14. In January 1990, a Remedial Investigation of the
4 Site was completed by a private consultant for WPSC. As part of
5 the Remedial Investigation of the site, 15 monitoring wells at
6 Thomas Ranch were installed and subsequently sampled in 1989.
7 Toluene and Thiophene were detected in these wells.

8 2.3.15. On December 21, 1990, a draft Feasibility Study
9 was submitted to the Department.

10 2.3.16. A draft Remedial Investigation summary of the
11 groundwater pathway at the site (that evaluated whether
12 groundwater was affected by the waste from the site) was submitted
13 to the Department in February 1991 by Dames and Moore on behalf of
14 WPSC. The study concluded that the groundwater beneath the site
15 contains organic sulfur compounds and is more acidic than other
16 local groundwater. The source of the groundwater contamination is
17 believed to be the waste at the site. As part of the RI/FS process
18 a Draft Baseline Health Risk Assessment (BHRA) report was
19 submitted to the Department in February 1991.

20 2.3.17. A Final Air Solid Waste Assessment ("Air SWAT")-
21 was performed at the site July 8, 1991, prepared by Dames & Moore
22 on behalf of WPSC. Results of the study show that the Thomas
23 Ranch property is not emitting hydrocarbon contaminants into the
24 air at levels that cause significant impacts to the surrounding
25 air quality.

1 2.3.18. On September 12, 1991, a Draft Workplan for Well
2 Removal and Replacement Installation, of well OHM-6 at the Site
3 was submitted to the Department by Dames and Moore on behalf of
4 WPSC.

5 2.3.19. On September 20, 1991, the Department approved
6 the Draft Workplan for Well Removal and Replacement Installation,
7 dated September 12, 1991.

8 2.3.20. On November 6, 1991, the Department requested
9 the inclusion of a showering, inhalation, and skin contact
10 exposure pathways as part of the On-Site Residential Exposure
11 Scenario in the Baseline Health Risk Assessment.

12 2.3.21. A Final Baseline Health Risk Assessment Report
13 ("BHRA") for the Site, dated October 29, 1991, was submitted to
14 the Department on March 5, 1992, by the WPSC.

15 2.3.22. On March 5, 1992, a revised Baseline Health Risk
16 Assessment report including a brief discussion stating that the
17 inclusion of exposure to chemicals in groundwater from showering
18 would not represent a significant change to the overall risks
19 estimated for the Thomas Ranch Site was submitted to the
20 Department by Dames & Moore on behalf of WPSC.

21 2.3.23. In a letter dated October 21, 1992 to RTC, the
22 Department requested a revision of the exposure scenarios in the
23 BHRA report to include the potential of air emissions and direct
24 contact with the wastes seeping up to the ground surface at Pond
25 4. In addition, the inclusion of a residential exposure scenario
26
27

1 evaluating the no-action alternative in the BHRA report was
2 requested.

3 2.3.24. In a letter dated October 29, 1992 to the
4 Department, Thomas, V. Hornbacher, Asset Specialist for RTC, stated
5 that RTC's goal is to liquidate all assets that come under RTC's
6 control as quickly and as effectively as possible. As Receiver
7 for WSLC, one of the assets held by RTC is Thomas Ranch. However,
8 WPSC must remediate the contamination at the Thomas Ranch site
9 before it can dispose of Thomas Ranch. Mr. Hornbacher has been
10 authorized by the Board of Directors of WPSC to initiate monthly
11 payments of \$25,000 to the Department toward the administrative
12 fees levied against WPSC by the Department.

13 2.3.25. In the same letter dated October 29, 1992,
14 Mr. Hornbacher also authorized the removal and replacement of Well
15 No. 6 and two rounds of groundwater sampling to be completed by
16 December 1, 1992. The removal of Well No. 6 was completed in the
17 spring of 1993.

18 2.3.26. On November 8, 1993, the OHM-6 Well Removal &
19 Replacement report was submitted to the Department by Dames &
20 Moore on behalf of WPSC. The report confirmed the presence of
21 heavy metals in the groundwater at OHM-6.

22 2.3.27. On March 10, 1994, the Groundwater Sampling
23 Report was submitted to the Department by Dames & Moore, on behalf
24 of WPSC.

25
26 2.4. Substances Found at the Site
27

1 2.4.1. Large quantities of hazardous wastes and
2 contaminated soil were found at the Site. The sources of
3 contamination at the Site are the four petroleum waste ponds.
4 Previous environmental investigations have indicated that there is
5 a total of approximately 25,400 cubic yards of petroleum wastes in
6 the ponds and another 5,200 cubic yards of contaminated soil on
7 site.

8 2.4.2. Investigations by the Department and private
9 consultants indicate that the petroleum wastes in the Ponds fall
10 into one of the four following categories of hazardous substances:
11 Volatile Organic Compounds; Semi-Volatile Organic Compounds;
12 Metals; and other Inorganic Parameters. The hazardous substances
13 found at the site are: naphthalene, naphtha, toluene, xylene,
14 benzene, ethylbenzene, propylbenzene, acetone, sulphur dioxide,
15 lead, arsenic, and heterocyclic sulfur compounds ("HCSCs"),
16 including thiophenes. Acetone, toluene, xylene, benzene, and
17 ethylbenzene each represent a moderate fire and explosion hazard.

18 2.4.3. These substances are hazardous substances within
19 the meaning of Health & Safety Code Section 25316. The waste
20 materials are also extremely acidic with a pH of 1.1 - 2.5 and as
21 such, they are hazardous wastes pursuant to Section 66708 of Title
22 22 of the California Administrative Code and are hazardous
23 substances within the meaning of Health and Safety Code Section
24 25316.

25 2.4.4. Each of the following substances is a listed
26 hazardous waste in Section 66261.126 Appendix X of Title 22 of the
27

California Administrative Code: acetone (#3); arsenic (#63); antimony (#52); benzene (#101); beryllium (#114); cadmium (#152); chromium (#204); cobalt (#207); copper (#221); ethylbenzene (#320); lead (#406); molybdenum (#517); naphtha (#523); naphthalene (#524); nickel (#528); toluene (#738); vanadium (#763); xylene (#776); zinc (#782).

2.4.5. Samples of wastes and soil were collected from ponds 1 through 4 in 1983 and 1987 with the results listed below. The adverse health effects of the presence of these hazardous substances in the soil are disclosed in section 2.5.

Volatile Organic Compounds

-- Benzene was found at concentrations up to 70.3 mg/kg in the samples of the petroleum wastes from the ponds.

-- Toluene was found at levels up to 525 mg/kg in the samples of petroleum wastes from the ponds.

-- Ethylbenzene was detected up to 138 mg/kg in the petroleum wastes from the ponds.

-- Naphthalene was found at levels up to 162 mg/kg in the samples of the petroleum wastes from the ponds.

Semi-Volatile Organic Compounds

-- Heterocyclic Sulfur Compounds ("HCSC") were detected in the waste samples from 0.14 mg/kg to 0.4 mg/kg.

1 -- Pyridines were detected in the waste
2 samples at concentrations of 0.15 mg/kg to 2.1
3 mg/kg.

4 Metals

5 -- Arsenic was detected in the waste samples
6 at levels of 11 mg/kg.

7 -- Barium was found at 0.12 mg/kg.

8 -- Cadmium was detected in the waste samples
9 at levels of 0.5 mg/kg.

10 -- Lead was found in the waste samples at a
11 concentration of 18 mg/kg.

12 -- Extractable metal concentrations showed
13 that antimony, cadmium, chromium, cobalt,
14 copper, lead, molybdenum, nickel, vanadium,
15 and zinc were all above the background levels.

16 2.4.6. Air sampling for a Solid Waste Assessment Test
17 ("SWAT") was conducted from September 21 to October 4, 1990 at the
18 Site in compliance with California Health and Safety Code Section
19 41805.5. This section requires all solid waste disposal sites
20 that have accepted solid or hazardous wastes to collect air
21 samples to determine, among other things, the presence of
22 speciated air contaminants in the ambient air. Ambient air
23 sampling results revealed that contaminants were often found at
24 higher concentrations at the upwind location indicating that
25 offsite sources could be responsible for the emissions of these
26 hazardous substances.

1 2.4.7. Groundwater samples were collected from OHM-6
2 well in 1993. Metals exceeding the Maximum Contaminant Levels
3 ("MCL") included beryllium, cadmium, nickel, iron and manganese.
4 A summary Table of the results is in Exhibit F. The Total
5 Dissolved Solids (TDS) for the samples collected during this study
6 were the highest to date indicating that the hazardous substances
7 are passively migrating further into the water table.

8 2.4.8. On March 10, 1994, on behalf of WPSC, Dames &
9 Moore submitted the Groundwater Sampling report. The sampling
10 program included conducting two rounds of groundwater monitoring
11 and sampling. The main purposes of the program were to confirm
12 the previous well sampling and analysis results and investigate
13 possible matrix effects on analyses for benzene. The results
14 revealed that the following hazardous substances were present in
15 the groundwater samples:

16 Volatile Organic Compounds

17 -- Benzene at concentrations between 0.69 and
18 3.9 ug/L.

19 -- Toluene was detected with the highest
20 concentration of 5.8 ug/L.

21 -- Ethylbenzene was detected between 0.53 and
22 2.3 ug/L.

23 -- Chloroform was detected between 0.69 and
24 4.2 ug/L.

25 -- Xylenes were detected with the highest
26 level of 14 ug/L.

1 Semi-Volatile Organic Compounds

2 -- Heterocyclic sulfur compounds (HCSC) have
3 been detected at elevated concentrations which
4 ranged between 1.2 and 5,300 ug/L.

5 Metals

6 -- Beryllium with a concentration of 0.023
7 mg/L (MCL 0.004 mg/L).

8 -- Cadmium with a concentration of 0.021 mg/L
9 (MCL 0.005 mg/L).

10 -- Iron with a concentration of 250 mg/L (MCL
11 0.3 mg/L).

12 -- Manganese with a concentration of 62 mg/L
13 (MCL 0.05 mg/L).

14 -- Nickel with a concentration of 0.41 mg/L
15 (MCL 0.1 mg/L)

16 The pH indicated the lowest value of 3.8 at well TR-18W, and
17 for the first time an acidic pH values of 4.6 and 4.8 were
18 measured in Well TR-11W, downgradient to Well TR-18W. Moreover,
19 the TDS was detected between 870 and 5,300 mg/L (MCL 1,000 mg/L),
20 and sulfate concentrations between 300 and 3,400 mg/L (MCL 500
21 mg/L).

22 The report concludes that groundwater quality at the site has
23 been adversely affected by migration of chemical constituents
24 which are apparently originating from the waste ponds at the site.
25 The area with the highest concentration of waste constituents in
26 groundwater is generally north of the three southeastern ponds, at
27

1 Well TR-18W. Based on the April and June 1993 groundwater
2 results, migration of acidic water has extended to the area near
3 Well TR-11W. The wells near the northeastern boundary of the
4 site, downgradient, from the waste ponds showed the presence of
5 waste related chemical constituents.

6
7 2.5. Health Effects. The substances contained in the Site
8 are hazardous within the meaning of Health & Safety Code Section
9 25316. The health effects of these hazardous substances can be
10 described as follows:

11 2.5.1. Benzene poisoning routes are mainly through
12 ingestion and inhalation and dermal contact which may result in
13 anesthetic action, consisting of excitation followed by depression
14 and respiratory failure. Chronic exposure may result in depressed
15 blood cell counts, pallor, nose bleeds, bleeding gums,
16 menorrhagia, petechiae and purpura. Benzene is mobile in soil and
17 it may migrate into the ground water.

18 2.5.2. Ethyl and propylbenzene poisoning routes are
19 mainly through ingestion and inhalation. Irritation to skin, eyes
20 and mucus membranes is also common. Exposure to vapor may cause
21 lachrymation and irritation of nose and throat, dizziness and a
22 sense of constriction of the chest. Ethylbenzene is mobile in
23 soil and it may migrate into the ground water.

24 2.5.3. Naphthalene poisoning routes are mainly through
25 ingestion and inhalation and dermal contact. Systematic fever,
26 anemia, liver damage, convulsions and coma may result.

1 Naphthalene is mobile in soil and it may migrate into the ground
2 water.

3 2.5.4. Toluene poisoning routes are mainly through
4 ingestion and inhalation. Chronic exposure symptoms may include
5 anemia, leukopenia, with bone marrow hypoplasia. Toluene is mobile
6 in soil and it may migrate into the ground water.

7 2.5.5. Acetone poisoning routes are mainly through
8 ingestion and inhalation. Acetone is a narcotic in high
9 concentrations. Acetone is mobile in soil and may migrate in to
10 ground water.

11 2.5.6. Exposure to any of the above hazardous substances
12 may occur through ingestion of contaminated drinking water.

13 2.5.7. Thiophene and sulphur dioxide poisoning routes
14 are mainly through inhalation and contact. Thiophene and sulphur
15 dioxide are gas phase contaminants emanating from substances on
16 the Site. They are extremely odorous, offensive, irritating and
17 noxious at low concentrations (less than one part per million).

18 2.5.8. Arsenic poisoning routes are mainly through
19 ingestion and inhalation. Chronic poisoning can occur from
20 inhalation.

21 2.5.9. Lead poisoning routes are mainly through
22 inhalation, ingestion and contact. Lead is a bioaccumulative
23 poison. Increasing amounts build up in the body until symptoms
24 and disability occur. Lead produces brittleness of the red blood
25 cells and increased fragility causing anemia.

1 2.5.10. Antimony poisoning routes are mainly through
2 inhalation and contact. Antimony poisoning can result in acute
3 toxicity, which produces severe gastrointestinal symptoms
4 including vomiting and diarrhea.

5 2.5.11. Beryllium's poisoning route is mainly through
6 inhalation. Beryllium's major toxicological effects are on the
7 lungs. It may produce an acute chemical pneumonitis,
8 hypersensitivity, and chronic granulomatous pulmonary disease
9 (berylliosis). Human epidemiologic studies are strongly
10 suggestive of a carcinogenic effect in humans.

11 2.5.12. Cadmium poisoning routes are mainly through
12 inhalation and ingestion. Acute toxicity may result from
13 ingestion of relatively high concentrations of cadmium, as may
14 occur in contaminated beverages or food. The principle long-term
15 of low-level exposure to cadmium are chronic obstructive pulmonary
16 disease and emphysema and chronic renal tubular disease. These
17 may also be effects on the cardiovascular and skeletal systems.

18 2.5.13. Chromium poisoning routes are mainly through
19 inhalation and ingestion. The major acute effect from ingested
20 chromium is acute renal tubular necrosis. Exposure to chromium is
21 associated with cancer of the respiratory tract. The greatest
22 risk of cancer is attributed to exposure to acid-soluble, water-
23 insoluble hexavalent chromium.

24 2.5.14. Cobalt poisoning routes are mainly through
25 inhalation, ingestion and contact. Cobalt toxicity has been
26 reported to produce vomiting, diarrhea, and a sensation of warmth.

1 High levels of chronic oral administration may result in the
2 production of goiter, which is higher in regions containing
3 increased levels of cobalt in the water and soil.

4 2.5.15. Copper poisoning routes are mainly through
5 inhalation, ingestion and contact. Copper is moderately toxic by
6 inhalation and highly toxic to humans by ingestion in some forms.
7 As a soluble salt, notably copper sulfate, it is a strong irritant
8 to skin and mucous membranes. Human systemic effects by ingestion
9 are nausea and vomiting. Chronic ingestion of high levels of
10 copper has been reported to cause hemolysis, fibrosis and
11 cirrhosis of the liver, nervous system damage and kidney
12 dysfunction. It is an experimental tumorigen and teratogen.

13 2.5.16. Molybdenum's poisoning route is mainly through
14 ingestion. Molybdenum toxicity may produce in animals a disease
15 known as "teart". It is characterized by anemia, poor growth rate,
16 and diarrhea. Prolonged exposure has led to deformities of the
17 joints.

18 2.5.17. Nickel poisoning routes are mainly through
19 inhalation and ingestion. Nickel is a suspected carcinogen and is
20 a respiratory irritant. Ingestion of soluble salts causes nausea,
21 vomiting, and diarrhea. Hypersensitivity to nickel is common and
22 can cause allergic contact dermatitis, pulmonary asthma,
23 conjunctivitis, and inflammatory reactions around nickel-
24 containing medical implants and prostheses.

25 2.5.18. Vanadium poisoning routes are mainly through
26 inhalation, ingestion and contact. The toxic action of Vanadium
27

1 is largely confined to the respiratory tract. Bronchitis and
2 bronchopneumonia are more frequent in exposure to vanadium
3 compounds. Irritant activity with respect to skin and eyes has
4 also been ascribed. Gastrointestinal distress, nausea, vomiting,
5 abdominal pain, cardiac palpitation, tremor, nervous depression,
6 and kidney damage, too, have been linked with vanadium exposure.
7

8 2.6. Routes of Exposure. Three pathways can be identified
9 for potential exposure to contaminants from the Thomas Ranch Site
10 to biological receptors. These pathways are: Groundwater pathway,
11 Surface water pathway, and Direct Contact pathway.

12 2.6.1. Groundwater Pathway. Groundwater samples
13 collected by Dames & Moore on October 23, 1990 showed elevated
14 levels of metals in the downgradient monitoring well OHM-6
15 compared to the upgradient monitoring well OHM-4. Thomas Ranch is
16 located at the northwestern edge of the Temescal Groundwater Basin
17 of the Upper Santa Ana River Valley. The Santa Ana Regional Water
18 Quality Control Plan identify the beneficial uses of the Temescal
19 Groundwater Basin as: drinking water, Municipal, Agriculture, and
20 Industrial. Water enters the Temescal Basin by infiltration of
21 surface water runoff from the mountains, rainfall on the valley
22 floor, subsurface flow from the Arlington Basin, and irrigation
23 recharge. Groundwater beneath the site occurs in a single,
24 unconfined alluvial aquifer at a depth of approximately 90 to 115
25 feet below ground surface. Groundwater flows in a north-northwest
26 direction, consistent with the general direction of the regional
27

1 groundwater flow in the Temescal Basin. The aquifer is relatively
2 permeable with calculated hydraulic conductivities ranging from
3 0.001 to 0.03 centimeters per second. The City of Corona's
4 blended drinking water system obtains 40 percent of its water from
5 16 active groundwater wells, 11 of which are within 4 miles of
6 Thomas Ranch. The Metropolitan Water District supplies the
7 remaining 60 percent from the Colorado River. Approximately
8 92,584 people are being served by this system. The City of Corona
9 Well 12, approximately 0.80 mile east of the site, is the nearest
10 municipal well and is upgradient, but is out of service.

11 Three active groundwater wells supply the drinking water for
12 the City of Norco. The City of Norco's blended drinking water
13 system serves approximately 17,000 people.

14 2.6.2. Surface Water Pathway. Thomas Ranch is located
15 adjacent to Wardlow Wash, an intermittent stream that flows
16 during periods of heavy precipitation. Wardlow Wash drains into
17 the Santa Ana River, approximately 2.5 miles west of the site and
18 downstream of the Prado Dam. The flow of the Santa Ana River is
19 dependent on the Prado Dam flood-control reservoir releases,
20 groundwater withdrawals, irrigation diversions, and recharge flows
21 from irrigation areas.

22 2.6.3. Direct Contact Pathway. The four ponds at Thomas
23 Ranch are surrounded by locked chain-link fences with posted
24 warning signs. However, there has been evidence that unauthorized
25 entries inside the fences have occurred. According to the
26 representatives of the WPSC, a section of the fence surrounding
27

1 ponds 1, 2, and 3 was cut by unidentified individuals and bicycle
2 tire marks were discovered on the surface of Ponds 2 and 3 before
3 the fence could be replaced.

4 5 III. CONCLUSIONS OF LAW 6

7 3.1 Each of the persons listed in Section 1.2 is a
8 "responsible party" or "liable person," as defined by Health and
9 Safety Code sections 25319, 25323.5 and 25385.1(g), herein
10 referred to as Respondent(s). The Department reserves the right
11 to add additional potentially responsible parties.

12 3.2 Each of the substances listed in Section 2.4 is a
13 "hazardous substance," as defined by Health and Safety Code
14 section 25316, and has been found at the Site.

15 3.3 A "release" or threatened release of the hazardous
16 substances listed in Section 2.4 has occurred at or from the Site,
17 as defined by Health and Safety Code section 25320.

18 3.4 The actual and/or threatened release of hazardous
19 substances at the Site may present an imminent and substantial
20 endangerment to the public health or welfare or to the
21 environment.

22 3.5 The actual and/or threatened release of hazardous
23 substances at the Site constitutes a public nuisance as defined in
24 Civil Code Sections 3479 and 3480.

25 26 IV. DETERMINATION 27

1 4.1 Based on the foregoing findings of fact and conclusions
2 of law, the Department hereby determines that removal and remedial
3 action is necessary at the Site because there may be an imminent
4 and substantial endangerment to the public health or welfare or to
5 the environment.

6
7 V. ORDER
8

9 5.0. Based on the foregoing FINDINGS AND DETERMINATION, IT IS
10 HEREBY ORDERED THAT Respondent(s) conduct the following response
11 activities in the manner specified herein, and in accordance with
12 a schedule specified by the Department as follows:

13 5.1. All work performed under this Order shall be consistent
14 with and based on CERCLA as amended, the National Contingency Plan
15 (40 Code of Federal Regulations (CFR) Part 300), as amended, the
16 Health and Safety Code (H&SC) Section 25300 et seq., as amended,
17 state laws and regulations, as amended, and other current and
18 applicable U.S. EPA and Department guidance and standards.

19 Major reports that were completed and submitted to the
20 Department are as follows:

21 May 8, 1985	Ron Barto & Associates Phase 2 Ground Water Exploration of 22 Sierra del Oro Project near Corona, CA
23 March 21, 1988	O.H. Materials Corporation, 24 Final Report for Phase I and Phase II Activities-Remedial Investigation of 25 Petroleum Waste Impoundments
26 August 22, 1988	O.H. Materials Corporation 27 Feasibility Study/Phase I Report of Alternatives for Waste Material

1 January 9, 1990 Dames & Moore
2 Remedial Investigation Report, Preliminary
Draft
3 December 21, 1990 Dames & Moore
4 Draft Feasibility Study Report
5 January 8, 1991 Dames & Moore
6 Remedial Investigation Report, Addendum
No. II, Solid Waste Air Quality Assessment
Test
7 February 8, 1991 Dames & Moore
8 Draft Remedial Investigation Report
Addendum No. I, Groundwater Summary
9 February 1991 Dames & Moore
10 Draft Baseline Health Risk Assessment
11 January 7, 1992 Dames & Moore
12 Geology & Hydrology Report
13 November 8, 1993 Dames & Moore
14 Well Removal & Replacement Report
15 March 10, 1994 Dames & Moore
16 Final Ground water Sampling Report

17 Other major reports that need to be completed are as follows:

- 18 -Final Remedial Investigation Report ("RI")
- 19 -Final Baseline Health Risk Assessment Report ("BHRA")
- 20 -Feasibility Study Workplan
- 21 -Final Feasibility Study Report ("FS")
- 22 -Final Remedial Action Report ("RAP")
- 23 -Final Remedial Design ("RD")
- 24 -Operation and Maintenance Workplan ("O&M")

25 5.1.1 Site Remediation Strategy. The purpose of this
26 Order is to require for the Site: completion of a Remedial
27 Investigation/Feasibility Study ("RI/FS"), preparation of a
Remedial Action Plan ("RAP"), preparation of California

1 Environmental Quality Act ("CEQA") documents, and Design and
2 Implementation of the remedial actions approved in the RAP. An
3 overall Site investigation and remediation strategy shall be
4 developed by the Respondent(s) in conjunction with the Department
5 which reflects program goals, objectives, and requirements.
6 Current knowledge of the Site contamination sources, exposure
7 pathways, and receptors shall be used in developing this strategy.
8

9 5.2. Remedial Investigation/Feasibility Study (RI/FS). A
10 RI/FS shall be conducted for the Site. The RI/FS shall be prepared
11 consistent with the U.S. Environmental Protection Agency's
12 "Guidance for Conducting Remedial Investigations and Feasibility
13 Studies under CERCLA," October 1988. The purpose of the RI/FS is
14 to assess Site conditions and to evaluate alternatives to the
15 extent necessary to select a remedy appropriate for the Site. The
16 RI will be completed after the Respondent conducts, and then
17 assesses the results of, two additional rounds of groundwater
18 monitoring and sampling in 12 of 15 wells after the well
19 replacement has been completed. The purpose of this work will be
20 to further assess the nature and extent of metals and organic
21 compounds in the groundwater beneath the site. The Final RI report
22 shall be submitted to the Department within 30 days from the date
23 this order is signed.

?
Nov. 31, 94

24 5.2.1. RI/FS Objectives. The objectives of the RI/FS
25 are to:
26
27

1 (a) Determine the nature and full extent of hazardous
2 substance contamination of air, soil, surface water and
3 groundwater at the Site and contamination from the Site,
4 including offsite areas affected by the Site;

5 (b) Identify all actual and potential exposure pathways
6 and routes through environmental media;

7 (c) Determine the magnitude and probability of actual
8 or potential harm to public health, safety or welfare or to
9 the environment posed by the threatened or actual release of
10 hazardous substances at or from the Site;

11 (d) Identify and evaluate appropriate response measures
12 to prevent or minimize future releases and mitigate any
13 releases which have already occurred; and

14 (e) Collect and evaluate the information necessary to
15 prepare a RAP in accordance with the requirements of Health
16 and Safety Code Section 25356.1. ? → Feb. 28, 94

17 5.2.2. FS Workplan. Within ~~90~~ days from the date the
18 Order is received, Respondent(s) shall prepare and submit to the
19 Department for review and approval a detailed FS Workplan and
20 implementation schedule which covers all the activities necessary
21 to complete the FS at the Site and any offsite areas where there
22 is a release or threatened release of hazardous substances from
23 the Site.

24 The FS Workplan shall include all past investigational data,
25 a detailed description of the tasks to be performed, information
26 or data needed for each task, and the deliverables which will be
27

1 submitted to the Department. Either the Respondent(s) or the
2 Department may identify the need for additional work.

3 These FS Workplan deliverables are discussed in the remainder
4 of this section, with a schedule for implementation, and monthly
5 reports. The FS Workplan shall include all the sections listed
6 below.

7 (a) Project Management Plan. The Project Management Plan
8 shall define relationships and responsibilities for major
9 tasks and project management items by Respondent(s), its
10 contractors, subcontractors, and consultants. The plan shall
11 include an organization chart with the names and titles of
12 key personnel and a description of their individual
13 responsibilities.

14 (b) Field Sampling Plan. The Field Sampling Plan shall
15 include:

- 16 (1) Sampling objectives, including a brief
17 description of data gaps and how the field
18 sampling plan will address these gaps;
- 19 (2) Sample locations, including a map showing
20 these locations, and proposed frequency;
- 21 (3) Sample designation or numbering system;
- 22 (4) Detailed specification of sampling
23 equipment and procedures;
- 24 (5) Sample handling and analysis including
25 preservation methods, shipping requirements
26 and holding times; and
27

1 (6) Management plan for wastes generated.

2 (c) Quality Assurance Project Plan. The plan shall
3 include:

4 (1) Project organization and responsibilities with
5 respect to sampling and analysis;

6 (2) Quality assurance objectives for measurement
7 including accuracy, precision, and method detection
8 limits. In selecting analytical methods, the
9 Respondent(s) shall consider obtaining detection
10 limits at or below potential ARARS, such as Maximum
11 Contaminant Levels (MCLs) or Maximum Contaminant
12 Level Goals (MCLGs);

13 (3) Sampling procedures;

14 (4) Sample custody procedures and documentation;

15 (5) Field and laboratory calibration procedures;

16 (6) Analytical procedures;

17 (7) Identification of the laboratory to be used,
18 certified pursuant to Health and Safety Code,
19 Section 25198;

20 (8) Specific routine procedure used to assess data
21 (precision, accuracy and completeness);

22 (9) Reporting procedure for measurement of system
23 performance and data quality;

24 (10) Data management, data reduction, validation
25 and reporting. Information shall be accessible to
26
27

1 downloading into the Department's computer system;
2 and

3 (11) Internal quality control.

4 (d) Health and Safety Plan. A site-specific Health and
5 Safety Plan shall be prepared in accordance with federal
6 (29 CFR 1910.120) and state (Title 8 CCR Section 5192)
7 regulations and shall describe the following:

- 8 (1) Field activities including work tasks,
9 objectives, and personnel requirements and a
10 description of hazardous substances on the
11 Site;
12 (2) Responsible Parties key personnel and
13 responsibilities;
14 (3) Potential hazards to workers including
15 chemical hazards, physical hazards,
16 confined spaces and climatic conditions;
17 (4) Potential risks from the work being
18 performed including impact to workers, the
19 community and the environment;
20 (5) Exposure monitoring plan;
21 (6) Personal protective equipment and engineering
22 controls; →
23 (7) Site controls including work zones and
24 security measures;
25 (8) Decontamination procedures;
26 (9) General safe work practices;
27

- (10) Sanitation facilities;
- (11) Standard operating procedures;
- (12) Emergency response plan covering workers
 , addressing potential hazardous material
 releases;
- (13) Training requirements;
- (14) Medical surveillance program; and
- (15) Record keeping.

(e) Other Activities. A description of any other significant activities which are appropriate to complete the FS.

(f) Schedule. A schedule which provides specific time frames and dates for completion of each activity and report, conducted or submitted under the FS Workplan including the schedules for removal actions and operable unit activities.

At the request of the Department, the Respondent(s) shall submit an interim document which identifies and evaluates potentially suitable remedial technologies and recommendations for treatability studies.

Treatability testing will be performed by the Respondent(s) to develop data for the detailed remedial alternatives.

Treatability testing is required to demonstrate the implementability and effectiveness of technologies, unless the Respondent(s) can show the Department that similar data or documentation or information exists. The required deliverables

1 are: a workplan, a sampling and analysis plan, and a treatability
2 evaluation report. To the extent practicable, treatability
3 studies will be proposed and implemented during the latter part of
4 Site characterization.

5 The Respondent(s) shall finalize the Baseline Risk Assessment
6 Report. They are requested to revise the exposure scenarios in the
7 BHRA report to include the potential of air emissions and direct
8 contact with the wastes seeping up to the ground surface at Pond
9 4. In addition, the inclusion of a residential exposure scenario
10 evaluating the no-action alternative in the BHRA report. The BHRA
11 report shall be submitted to the Department within ¹⁵⁰~~30~~ days this
12 order is signed. NOV. 31, 94

13 5.2.3. FS Workplan Implementation. Respondent(s) shall
14 implement the approved FS Workplan, within ~~45~~¹⁵⁰ days of the
15 Department approval. Nov 15, 94

16 5.2.4. FS Workplan Revisions. If Respondent(s) modifies any
17 methods or initiates new activities for which no Field Sampling
18 Plan, Health and Safety Plan, Quality Assurance Project Plan or
19 other necessary procedures/plans have been established, the
20 Respondent(s) shall prepare an addendum to the approved plan(s)
21 for Department review and approval prior to modifying the method
22 or initiating new activities.

23
24 5.5. Feasibility Study (FS) Report. The FS Report shall be
25 prepared and submitted by the Respondent(s) to the Department for
26 review and approval, no later than 45 days from the date the
27

1 Workplan is approved. The FS Report shall summarize the results
2 of the FS including the following:

- 3 (a) Documentation of all treatability studies conducted.
4 (b) Development of medium specific or operable unit specific
5 remedial action objectives, including ARARs.
6 (c) Identification and screening of general response
7 actions, remedial technologies, and process options on a
8 medium and/or operable unit specific basis.
9 (d) Evaluation of alternatives based on the criteria
10 contained in the NCP and H&SC Section 25356.1 including:

11 Threshold Criteria:

- 12 (1) Overall protection of human health and the
13 environment.
14 (2) Compliance with ARARs.

15 Primary Balancing Criteria:

- 16 (1) Long-term effectiveness and permanence.
17 (2) Reduction of toxicity, mobility, or volume through
18 treatment.
19 (3) Short-term effectiveness.
20 (4) Implementability based on technical and
21 administrative feasibility.
22 (5) Cost.

23 Modifying Criteria:

- 24 (1) State and local agency acceptance.
25 (2) Community acceptance.
26 (e) Proposed remedial actions.
27

1 5.6. Public Participation Plan (Community Relations). The
2 Respondent(s) shall work cooperatively with the Department in
3 ensuring that the affected public and community are involved in
4 the Department's decision-making process. Any such public
5 participation activities shall be conducted in accordance with
6 Health and Safety Code Section 25356.1(d), the Department's Public
7 Participation Policy and Guidance Manual, and with the
8 Department's review and approval.

9 The Respondent(s), in coordination with the Department, shall
10 develop a Public Participation Plan ("PPP") which describes how,
11 under the Order, the public and adjoining community will be kept
12 informed of activities conducted at the Site and how the
13 Respondent(s) will be responding to inquiries from concerned
14 citizens. Major steps in developing a PPP are as follows:

- 15 (a) Develop proposed list of interviews;
- 16 (b) Schedule and conduct community interviews; and
- 17 (c) Analyze interview notes, and develop objectives.

18 The Respondent(s) shall submit the PPP for the Department's
19 review within 30 days of the date the Order is received.

20 The Respondent(s) shall develop and submit fact sheets to the
21 Department for review and approval when key milestones are
22 projected and/or completed or when specifically requested by the
23 Department. Respondent(s) shall be responsible for distribution
24 of fact sheets using the approved community mailing list.

1 5.7. California Environmental Quality Act ("CEQA"). The
2 Department must comply with CEQA insofar as activities required by
3 this order are projects requiring CEQA compliance. The
4 Respondent(s) shall submit an Initial Study, associated checklist,
5 and discussion of mitigation methods (if any) as required by CEQA,
6 concurrent with submittal of the draft RAP specified in
7 Section 5.8, or when notified by the Department that an activity
8 required by this order requires CEQA compliance. Based on the
9 results of the Initial Study, the Department will determine if a
10 Negative Declaration or Environmental Impact Report ("EIR") should
11 be prepared. If the Department believes that an EIR is necessary,
12 it may contact the Respondent(s) prior to the submittal of the
13 draft RAP to identify the necessary tasks and schedule the
14 preparation and finalization of the EIR.

15
16 5.8. Remedial Action Plan. No later than 30 days after
17 Department approval of the FS Report, the Respondent(s) shall
18 prepare and submit to the Department a draft RAP. The draft RAP
19 shall be consistent with the NCP and Health and Safety Code
20 Section 25356.1, et seq. The draft RAP public review process may
21 be combined with that of any other documents required by CEQA.
22 The draft RAP shall be based on and summarize the approved RI/FS
23 Reports, and shall clearly set forth:

24 (a) Health and safety risks posed by the conditions at
25 the Site.

1 (b) The effect of contamination or pollution levels upon
2 present, future, and probable beneficial uses of
3 contaminated, polluted, or threatened resources.

4 (c) The effect of alternative remedial action measures
5 on the reasonable availability of groundwater resources for
6 present, future, and probable beneficial uses.

7 (d) Site specific characteristics, including the
8 potential for offsite migration of hazardous substances, the
9 surface or subsurface soil, and the hydrogeologic conditions,
10 as well as preexisting background contamination levels.

11 (e) Cost-effectiveness of alternative remedial action
12 measures. Land disposal shall not be deemed the most
13 cost-effective measure merely on the basis of lower
14 short-term cost.

15 (f) The potential environmental impacts of alternative
16 remedial action measures, including, but not limited to, land
17 disposal of the untreated hazardous substances as opposed to
18 treatment of the hazardous substances to remove or reduce its
19 volume, toxicity, or mobility prior to disposal.

20 (g) A statement of reasons setting forth the basis for
21 the removal and remedial actions selected. The statement
22 shall include an evaluation of each proposed alternative
23 submitted and evaluate the consistency of the removal and
24 remedial actions proposed by the plan with the federal
25 regulations and factors specified in subdivision (c) of
26 Health and Safety Code (H&SC) Section 25356.1. The statement
27

1 shall also include a proposed Nonbinding Preliminary
2 Allocation of Responsibility (NBAR) for all identified RPs.

3 (h) A schedule for implementation of all proposed
4 remedial actions.

5 In conjunction with the Department, the Respondent(s) shall
6 implement the public review process specified in Health and Safety
7 Code Section 25356.1 (d)(1), et seq. Within 10 days of closure of
8 the public comment period, the Respondent(s) shall submit a
9 written Responsiveness Summary of all written and oral comments
10 presented and received during the public comment period.

11 Following the Department's review and finalization of the
12 Responsiveness Summary, the Department will specify any changes to
13 be made in the RAP. The Respondent(s) shall modify the document
14 in accordance with the Department's specifications and submit a
15 revised RAP within 30 days of receipt of the Department's
16 comments.

17
18 5.9. Remedial Design. Within 60 days after Department
19 approval of the final RAP, Respondent(s) shall submit to the
20 Department for review and approval a Remedial Design describing in
21 detail the technical and operational plans for implementation of
22 the final RAP which includes the following elements, as
23 applicable:

24 (a) Design criteria, process unit and pipe sizing
25 calculations, process diagrams, and final plans and
26 specifications for facilities to be constructed.
27

1 (b) Description of equipment used to excavate, handle,
2 and transport contaminated material.

3 (c) A field sampling and laboratory analysis plan
4 addressing sampling during implementation and to confirm
5 achievement of the performance objectives of the RAP.

6 (d) A transportation plan identifying routes of travel
7 and final destination of wastes generated and disposed.

8 (e) For groundwater extraction systems: aquifer test
9 results, capture zone calculations, specifications for
10 extraction and performance monitoring wells, and a plan to
11 demonstrate that capture is achieved.

12 (f) An updated health and safety plan addressing the
13 implementation activities.

14 (g) Identification of any necessary permits and
15 agreements.

16 (h) An operation and maintenance plan including any
17 required monitoring.

18 (i) A detailed schedule for implementation of the
19 remedial action consistent with the schedule contained in the
20 approved RAP including procurement, mobilization,
21 construction phasing, sampling, facility startup, and
22 testing.

23
24 5.10. Deed Restrictions. If the approved remedy in the
25 Final RAP includes deed restrictions, Respondent(s) shall sign and
26
27

1 record deed restrictions approved by the Department within 90 days
2 of the Department's approval of the final RAP.

3
4 5.11. Implementation of Final Remedial Action Plan. Upon
5 Department approval of the Remedial Design ("RD"), Respondent(s)
6 shall implement the final RAP as approved. Within 30 days of
7 completion of field activities, Respondent(s) shall submit an
8 Implementation Report documenting the implementation of the Final
9 RAP and RD.

10
11 5.12. Operation and Maintenance ("O&M"). Respondent(s)
12 shall comply with all operation and maintenance requirements in
13 accordance with the final RAP and approved RD. O&M Agreements,
14 which include financial assurance, must be entered into with the
15 Department prior to certification of the Site.

16
17 5.13. Five-Year Review. Pursuant to Section 121(c) of
18 CERCLA (42 U.S.C. 9601, et seq.), as amended by the Superfund
19 Amendments and Reauthorization Act ("SARA") of 1986, Respondent(s)
20 shall submit a remedial action review workplan within 30 days
21 before the end of the five-year period following approval of the
22 final RAP. Within 60 days of the Department's approval of the
23 workplan, Respondent(s) shall implement the workplan and shall
24 submit a comprehensive report of the results of the remedial
25 action review. The report shall describe the results of all
26
27

1 sample analyses, tests and other data generated or received by the
2 Respondent(s).

3
4 5.14. Changes During Implementation of the Final RAP.

5 During the implementation of the final RAP and RD, the Department
6 may specify such additions, modifications, and revisions to the RD
7 as deemed necessary to protect public health and safety or the
8 environment or to implement the RAP.

9
10 5.15. Stop Work Order. In the event that the Department
11 determines that any activity (whether or not pursued in compliance
12 with this Order) may pose an imminent or substantial endangerment
13 to the health or safety of people on the Site or in the
14 surrounding area or to the environment, the Department may order
15 Respondent(s) to stop further implementation of this Order for
16 such period of time needed to abate the endangerment. In the
17 event that the Department determines that any site activities
18 (whether or not pursued in compliance with this Order) are
19 proceeding without Department authorization, the Department may
20 order Respondent(s) to stop further implementation of this Order
21 or activity for such period of time needed to obtain Department
22 authorization, if such authorization is appropriate. Any deadline
23 in this Order directly affected by a Stop Work Order, under this
24 section, shall be extended for the term of the Stop Work Order.

1 5.16. Emergency Response Action/Notification. In the event
2 of any action or occurrence (such as a fire, earthquake,
3 explosion, or human exposure to hazardous substances caused by the
4 release or threatened release of a hazardous substance) during the
5 course of this Order, Respondent(s) shall immediately take all
6 appropriate action to prevent, abate, or minimize such emergency,
7 release, or immediate threat of release and shall immediately
8 notify the Project Manager. Respondent(s) shall take such action
9 in consultation with the Project Manager and in accordance with
10 all applicable provisions of this Order. Within seven days of the
11 onset of such an event, Respondent(s) shall furnish a report to
12 the Department, signed by the Respondent(s)' Project Coordinator,
13 setting forth the events which occurred and the measures taken in
14 the response thereto. In the event that Respondent(s) fail to
15 take appropriate response and the Department takes the action
16 instead, Respondent(s) shall be liable to the Department for all
17 costs of the response action. Nothing in this section shall be
18 deemed to limit any other notification requirement to which the
19 Respondent(s) may be subject.

20
21 5.17. Discontinuation of Remedial Technology. Any remedial
22 technology employed in implementation of the final RAP shall be
23 left in place and operated by Respondent(s) until and except to
24 the extent that the Department authorizes Respondent(s) in writing
25 to discontinue, move or modify some or all of the remedial
26 technology because Respondent(s) has met the criteria specified in
27

1 the final RAP for its discontinuance, or because the modifications
2 would better achieve the goals of the final RAP.

3
4 VI. GENERAL PROVISIONS
5

6 6.1. Project Coordinator. Within 10 days from the date the
7 Order is signed by the Department, Respondent(s) shall submit to
8 the Department in writing the name, address, and telephone number
9 of a Project Coordinator whose responsibilities will be to receive
10 all notices, comments, approvals, and other communications from
11 the Department. Respondent(s) shall promptly notify the
12 Department of any change in the identity of the Project
13 Coordinator.
14

15 6.2. Project Engineer/Geologist. The work performed
16 pursuant to this Order shall be under the direction and
17 supervision of a qualified professional engineer or a registered
18 geologist in the State of California with expertise in hazardous
19 substance site cleanup. Within 15 calendar days from the date the
20 Order is signed by the Department, Respondent(s) must submit: a)
21 The name and address of the project engineer or geologist chosen
22 by the Respondent(s); and b) in order to demonstrate expertise in
23 hazardous substance cleanup, the resume of the engineer or
24 geologist, and the statement of qualifications of the consulting
25 firm responsible for the work. Respondent(s) shall promptly
26
27

1 notify the Department of any change in the identity of the Project
2 Engineer/Geologist.
3

4 6.3. Monthly Summary Reports. Within 30 days from the date
5 the Order is signed by the Department, and on a monthly basis
6 thereafter, Respondent(s) shall submit a Monthly Summary Report of
7 its activities under the provisions of this Order. The report
8 shall be received by the Department by the 15 day of each month
9 and shall describe:

10 (a) Specific actions taken by or on behalf of
11 Respondent(s) during the previous calendar month;

12 (b) Actions expected to be undertaken during the current
13 calendar month;

14 (c) All planned activities for the next month;

15 (d) Any requirements under this Order that were not
16 completed;

17 (e) Any problems or anticipated problems in complying
18 with this Order; and

19 (f) All results of sample analyses, tests, and other
20 data generated under the Order during the previous calendar
21 month, and any significant findings from these data.
22

23 6.4. Quality Control/Quality Assurance ("QC/QA"). All
24 sampling and analysis conducted by Respondent(s) under this Order
25 shall be performed in accordance with QC/QA procedures submitted
26
27

1 by Respondent(s) and approved by the Department pursuant to this
2 Order.

3
4 6.5. Submittals. All submittals and notifications from
5 Respondent(s) required by this Order shall be sent
6 simultaneously to:

7
8 Mr. Haissam Y. Salloum, P.E.
9 Unit Chief
10 Site Mitigation Operations Branch
11 Attention: Project Manager Oussama Issa
12 Department of Toxic Substances Control
13 245 West Broadway, Suite # 425
14 Long Beach, California 90802-4444

15
16 Mr. Gerald J. Thibeault
17 Executive Officer
18 Regional Water Quality Control Board
19 2010 Iowa Avenue, Suite 100
20 Riverside, California 92507-2409

21
22 Mr. John Fanning, Director
23 Riverside County Public Health
24 Hazardous Materials Division
25 4065 County Circle Drive
26 P.O.Box 7600
27 Riverside, California 92513-7600

19 6.6. Communications. All approvals and decisions of the
20 Department made regarding submittals and notifications will be
21 communicated to Respondent(s) in writing by the Site Mitigation
22 Branch Chief, Department of Toxic Substances Control, or his/her
23 designee. No informal advice, guidance, suggestions or comments
24 by the Department regarding reports, plans, specifications,
25 schedules or any other writings by Respondent(s) shall be
26
27

1 construed to relieve Respondent(s) of the obligation to obtain
2 such formal approvals as may be required.

3
4 6.7. Department Review and Approval.

5 (a) If the Department determines that any report,
6 plan, schedule or other document submitted for approval
7 pursuant to this Order fails to comply with this Order
8 or fails to protect public health or safety or the
9 environment, the Department may:

10 (1) Modify the document as deemed necessary and
11 approve the document as modified; or

12 (2) Return comments to Respondent(s) with
13 recommended changes and a date by which

14 Respondent(s) must submit to the Department
15 a revised document incorporating the recommended
16 changes.

17 (b) Any modifications, comments or other
18 directive issued pursuant to (a) above, are
19 incorporated into this Order. Any noncompliance with
20 these modifications or directives shall be deemed a
21 failure or refusal to comply with this Order.

22
23 6.8. Compliance with Applicable Laws. Respondent(s) shall
24 carry out this Order in compliance with all applicable state,
25 local, and federal requirements including, but not limited to,
26 requirements to obtain permits and to assure worker safety.

1 6.9. Respondent Liabilities. Nothing in this Order shall
2 constitute or be construed as a satisfaction or release from
3 liability for any conditions or claims arising as a result of
4 past, current or future operations of Respondent(s). Nothing in
5 this Order is intended or shall be construed to limit the rights
6 of any of the parties with respect to claims arising out of or
7 relating to the deposit or disposal at any other location of
8 substances removed from the Site. Nothing in this Order is
9 intended or shall be construed to limit or preclude the Department
10 from taking any action authorized by law to protect public health
11 or safety or the environment and recovering the cost thereof.
12 Notwithstanding compliance with the terms of this Order,
13 Respondent(s) may be required to take further actions as are
14 necessary to protect public health and the environment.
15

16 6.10. Site Access. Access to the Site and laboratories used
17 for analyses of samples under this Order shall be provided at all
18 reasonable times to employees, contractors, and consultants of the
19 Department. Nothing in this section is intended or shall be
20 construed to limit in any way the right of entry or inspection
21 that the Department or any other agency may otherwise have by
22 operation of any law. The Department and its authorized
23 representatives shall have the authority to enter and move freely
24 about all property at the Site at all reasonable times for
25 purposes including, but not limited to: inspecting records,
26 operating logs, sampling and analytic data, and contracts relating
27

1 to this Site; reviewing the progress of Respondent(s) in carrying
2 out the terms of this Order; conducting such tests as the
3 Department may deem necessary; and verifying the data submitted to
4 the Department by Respondent(s).

5
6 6.11. Sampling, Data and Document Availability.

7 Respondent(s) shall permit the Department and its authorized
8 representatives to inspect and copy all sampling, testing,
9 monitoring or other data generated by Respondent(s) or on
10 Respondent(s) behalf in any way pertaining to work undertaken
11 pursuant to this Order. Respondent(s) shall submit all such data
12 upon the request of the Department. Copies shall be provided
13 within 7 days of receipt of the Department's written request.
14 Respondent(s) shall inform the Department at least 7 days in
15 advance of all field sampling under this Order, and shall allow
16 the Department and its authorized representatives to take
17 duplicates of any samples collected by Respondent(s) pursuant to
18 this Order. Respondent(s) shall maintain a central depository of
19 the data, reports, and other documents prepared pursuant to this
20 Order.

21
22 6.12. Record Retention. All such data, reports and other
23 documents shall be preserved by Respondent(s) for a minimum of ten
24 years after the conclusion of all activities under this Order. If
25 the Department requests that some or all of these documents be
26 preserved for a longer period of time, Respondent(s) shall either
27

1 comply with that request or deliver the documents to the
2 Department, or permit the Department to copy the documents prior
3 to destruction. Respondent(s) shall notify the Department in
4 writing, at least six months prior to destroying any documents
5 prepared pursuant to this Order.
6

7 6.13. Government Liabilities. The State of California shall
8 not be liable for any injuries or damages to persons or property
9 resulting from acts or omissions by Respondent(s), or related
10 parties specified in Section 6.28, Parties Bound, in carrying out
11 activities pursuant to this Order, nor shall the State of
12 California be held as party to any contract entered into by
13 Respondent(s) or its agents in carrying out activities pursuant to
14 this Order.
15

16 6.14. Additional Actions. By issuance of this Order, the
17 Department does not waive the right to take any further actions
18 authorized by law.
19

20 6.15. Extension Requests. If Respondent(s) is unable to
21 perform any activity or submit any document within the time
22 required under this Order, Respondent(s) may, 10 days prior to
23 expiration of the time, request an extension of the time in
24 writing. The extension request shall include a justification for
25 the delay. Again, all such requests shall be made 10 days in
26 advance of the date on which the activity or document is due.
27

1 6.16. Extension Approvals. If the Department determines
2 that good cause exists for an extension, it will grant the request
3 and specify a new schedule in writing. Respondent(s) shall comply
4 with the new schedule incorporated in this Order.

5
6 6.17. Cost Recovery. The Respondent(s) are liable for all of
7 the Department's costs incurred in responding to the contamination
8 at the site (including costs of overseeing response work performed
9 by the Respondent(s)) and costs to be incurred in the future.
10 Cost recovery may be pursued by the Department under CERCLA,
11 Section 25360 of the California Health and Safety Code, or any
12 other applicable state or federal statute or common law.

13
14 6.18. Past Costs. The Respondent(s) shall pay twenty-five
15 thousand dollars (\$25,000) to the Department on a monthly
16 schedule, beginning in July 1994, for payment of estimated past
17 oversight costs in the amount of five hundred thousand dollars
18 (\$500,000) incurred by the Department for the time period
19 July 1, 1985 through June 30, 1994. The first payment shall be
20 paid to the Department within thirty (30) calendar days of the
21 effective date of this Order and applied toward the Department's
22 past costs incurred to June 30, 1994. The Department shall bill
23 the Respondent(s) monthly for twenty-five thousand dollars as
24 shown in Attachment #1 until such time as the past costs owed by
25 the Respondent(s) are paid. Oversight costs are estimated and may
26 be adjusted to reflect true past costs.

1 6.19. Future Oversight Costs. The Respondent(s) shall pay
2 all response costs and costs incurred by the Department on
3 reviewing Respondent(s)' activities under this Order and/or
4 related to this Order. The Respondent(s) shall pay the Department
5 for any costs incurred after June 30, 1994 to fund the
6 Department's future oversight and activity review. Future
7 response, oversight and review costs include direct costs,
8 indirect costs and administrative charges. Under all
9 circumstances, Respondent(s) shall remain liable for costs
10 incurred by the Department as specified including interest thereon
11 as provided by law.

12
13 6.20. Future Payment of Costs. In December 1994, and on a
14 quarterly interval thereafter, an accounting of the Department's
15 oversight costs will be prepared by the Department and submitted
16 to the Respondent(s) for costs incurred after June 30, 1994. The
17 Respondent(s) shall reimburse the Department for these costs (60)
18 days from the date of the invoice from the Department. Failure to
19 reimburse the Department for its costs within the specified time
20 may result in a cost recovery by the Department under CERCLA,
21 Section 25360 of the California Health and Safety Code, or any
22 other applicable state or federal statute or common law.

23
24 6.21. Severability. The requirements of this Order are
25 severable, and Respondent(s) shall comply with each and every
26
27

1 provision hereof, notwithstanding the effectiveness of any other
2 provision.

3
4 6.22. Incorporation of Plans, Schedules and Reports. All
5 plans, schedules, reports, specifications and other documents that
6 are submitted by Respondent(s) pursuant to this Order are
7 incorporated in this Order upon the Department's approval or as
8 modified pursuant to Section 6.7, Department Review and Approval,
9 and shall be implemented by Respondent(s). Any noncompliance with
10 the documents incorporated in this Order, shall be deemed a
11 failure or refusal to comply with this Order.

12
13 6.23. Modifications. The Department reserves the right to
14 unilaterally modify this Order. Any modification to this Order
15 shall be effective upon the date the modification is signed by the
16 Department and shall be deemed incorporated in this Order.

17
18 6.24. Time Periods. Unless otherwise specified, time
19 periods begin from the effective date of this Order and "days"
20 means calendar days. The effective date of this Order is the date
21 the Order is signed by the Department.

22
23 6.25. Termination and Satisfaction. The Respondent(s)
24 obligations under this Order, except for the Respondent(s)
25 obligation to pay all past and future costs incurred by the
26 Department in responding to the contamination at the Site pursuant
27

1 to Sections 5.13, Five-Year Review; 6.17, Cost Recovery; and 6.19,
2 Future Costs, shall terminate and be deemed satisfied upon
3 Respondent(s) receipt of written notice from the Department that
4 the Respondent(s) has complied with all the terms of this Order.
5

6 6.26. Calendar of Tasks and Schedules. This Section is
7 merely for the convenience of listing in one location the
8 submittals required by this Order. If there is a conflict between
9 the date for a scheduled submittal within this section and the
10 date within the section describing the specific requirement, the
11 latter shall govern.
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Calendar of Tasks and Schedules

TASK

SCHEDULE

1. Identify Project ,
Coordinator;
Section 6.1;

Within 10 days from the date
the Order is signed by the
Department.

2. Identify Project
Engineer/Geologist;
Section 6.2;

Within 20 days from the date
the Order is signed by the
Department.

3. Submit Public
Participation Plan;
Section 5.6;

Within 30 days from the date
the Order is received.

Submit and distribute
Fact Sheets;

For projected or completed key
milestones or when requested
by the Department.

4. Submit Monthly Summary
Reports;
Section 6.3;

Within 40 days from the date
the Order is signed by the
Department

5. Submit Final RI Report;
Section 5.2;

Within 50 days from the date
the Order is signed by the
Department.

6. Submit Final Baseline
Health Risk Assessment
report;
Section 5.2.2;

Within 60 days from the date
the Order is signed by the
Department.

7. Submit FS Workplan;
Section 5.2.2.

Within 90 days from the date
the Order is received.

8. Submit FS Report;
Section 5.5;

Within 45 days from the date
the Workplan is approved.

9. Submit Initial Study and
Checklist; Section 5.7;

Within 30 days after approval
of FS Report.

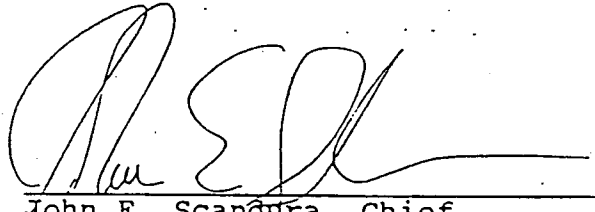
	<u>TASK</u>	<u>SCHEDULE</u>
1		
2		
10	Submit Draft RAP; Section 5.8;	Within 30 days after approval of FS Report.
3		
4	Submit Responsiveness Summary;	Within 10 days of closure of public comment period.
5	Submit Revised RAP;	Within 30 days of receipt of Department's comments.
6		
11	Submit Remedial Design; Section 5.9;	Within 60 days after Department's approval of the Final RAP.
7		
8		
12	Deed Restrictions; Section 5.10;	Within 90 days of approval of Final RAP.
9		
10	Submit Implementation Report; Section 5.11;	Within 30 days of completion of field activities.
11		
14	Submit Remedial Action Review Workplan; Section 5.13;	Within 30 days before end of five-year period.
12		
13		
14	Submit Emergency Response Action Report; Section 5.16;	Within 7 days of an emergency response action.
15		
16		
16	Provide copies of sampling, data, and documentation; Section 6.11;	Within 7 days of receipt of Department's request.
17		
18		
19	Provide prior notice before conducting field sampling.	Inform Department 7 days <u>in</u> <u>advance</u> of sampling.
20		
21		
17	Maintain central depository of data, reports, documentation; and	Maintain central depository for a <u>minimum</u> of ten years after conclusion of all pursuant to the Order.
22		
23		
24	Provide prior written notice to the Department before destroying any documentation prepared pursuant to the Order; Section 6.12	At least six months prior to destroying any documents.
25		
26		
27		

1 6.27. Parties Bound. This Order applies to and is binding
2 upon Respondent(s), and its officers, directors, agents,
3 employees, contractors, consultants, receivers, trustees,
4 successors and assignees, including but not limited to,
5 individuals, partners, and subsidiary and parent corporations, and
6 upon any successor agency of the State of California that may have
7 responsibility for and jurisdiction over the subject matter of
8 this order.
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VII. PENALTIES AND PUNITIVE DAMAGES
FOR NONCOMPLIANCE

7.1 You may be liable for penalties of up to \$25,000 for each day you refuse to comply with this Order and for punitive damages up to three times the amount of any costs incurred by the Department as a result of your failure to comply, pursuant to Health and Safety Code sections 25359, 25359.2, 25359.4, and 25367(c). Health and Safety Code Section 25359.3 provides that a responsible party who complies with this order, or with another order or agreement concerning the same response actions required by this order, may seek treble damages from Respondent(s) who fail or refuse to comply with this order without sufficient cause.

DATED: June 30, 1994


John E. Scandura, Chief
Site Mitigation Operations Branch
Department of Toxic
Substances Control
Region 4 - Long Beach

cc: Department of Toxic Substances Control
Site Mitigation Program
Headquarters, Planning & Policy
400 P Street, 4th floor
P.O.Box 806
Sacramento, California 95812-0806

Department of Toxic Substances Control
Office of Legal Counsel
400 p Street, 4th floor
P.O.Box 806
Sacramento, California 95812-0806

Attachment #1

Summary of Payment of Past Costs as specified in Section 6.18.

Month/Year	Payment	Subtotal of payments
June/1994	\$25,000	\$25,000
July/1994	\$25,000	\$50,000
August/1994	\$25,000	\$75,000
September/1994	\$25,000	\$100,000
October/1994	\$25,000	\$125,000
November/1994	\$25,000	\$150,000
December/1994	\$25,000	\$175,000
January/1995	\$25,000	\$200,000
February/1995	\$25,000	\$225,000
March/1995	\$25,000	\$250,000
April/1995	\$25,000	\$275,000
May/1995	\$25,000	\$300,000
June/1995	\$25,000	\$325,000
July/1995	\$25,000	\$350,000
August/1995	\$25,000	\$375,000
September/1995	\$25,000	\$400,000
October/1995	\$25,000	\$425,000
November/1995	\$25,000	\$450,000
December/1995	\$25,000	\$475,000
January/1996	\$25,000	\$500,000
February/1996	\$---,---	\$---,---